

## PLATE XXXI.

Fig. 9. Longitudinal median dorso-ventral section through the inferior extremity of the stem: *ms*, median septum, dividing the inner cavity into a dorsal and ventral channel.

10. Section of the same series, but more lateral: *sp*, calcareous spicules.

11. Direct continuation of the terminal disk *a* into the sclerenchyma *sl* (fig. 9).

12. Transverse section through the middle of the stem. Appearance of two additional lateral channels, *ll*.

13. The same through the lower portion of the rhachis: *dl*, dorsal, *vl*, ventral channel; *p*, polyp-cell with two internal supports; *f*, ventral furrow; *p.s*, radially situated spaces.

14. The red-coloured calcareous spicules.

#### 4. Descriptions of new Species of Lepidoptera Heterocera, chiefly from South America. By HERBERT DRUCE, F.L.S., F.Z.S., &c.

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(Plates XXXII. & XXXIII.)

The following descriptions are all taken from specimens in my own collection. They mostly relate to species brought home by Mr. C. Buckley from Ecuador; to these I have added descriptions of some recent acquisitions from various localities.

##### AGARISTIDÆ.

##### EUSEMIA, Dalman.

##### EUSEMIA OPHELTES, sp. n.

Primaries deep black with a metallic streak across the middle of the cell, and a second wider streak on the discocellulars; the outer margin from the apex to the anal angle broadly banded with snow-white: secondaries glossy deep blue, in some lights shot with greenish reflections; the outer margin broadly banded with white from the apex to the inner margin; the underside the same as above. Thorax and abdomen bluish black; collar white; head and antennæ black; palpi and under front of thorax bright orange.

Expanse  $3\frac{1}{4}$  inches.

*Hab.* North Burmah.

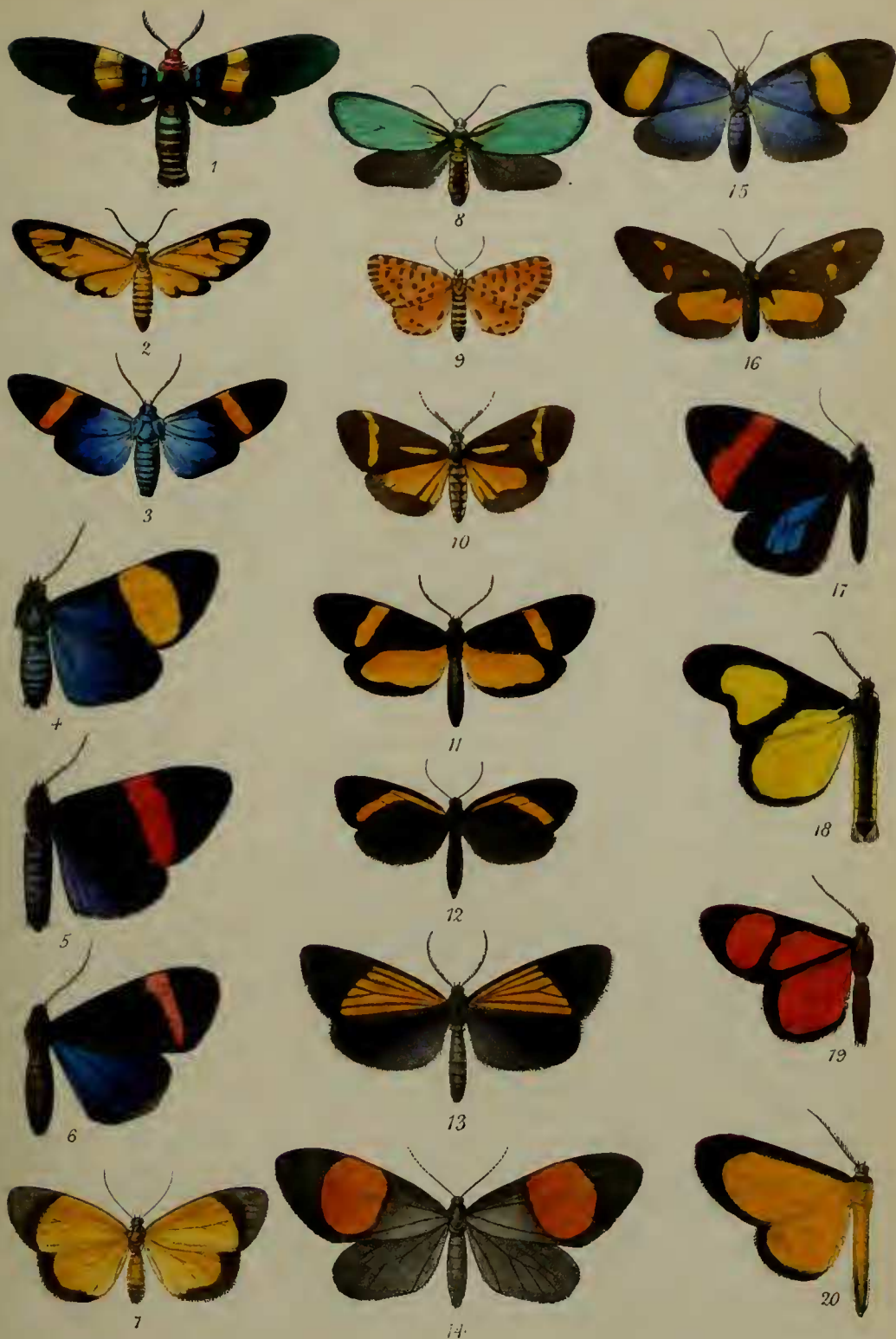
This grand insect belongs to the *E. albomarginata* group of *Eusemia* and comes nearest *E. fimbriata*, Boisd., from which it is at once distinguished by the broad snow-white margins to the wings.

##### CHALCOSIIDÆ.

##### AMESIA, Westwood.

##### AMESIA HYALA, sp. n.

Primaries uniform dark brown, with eight white spots beyond the cell, placed the same as in *A. euplocoides*, but without the blue spots on the costal margin and at the base as in that species; the extreme ends of the nerves on the outer margin marked by a few



W Purkiss lith.

Hanhart imp.



1



7



12



2



8



13



3



9



14



4



10



15



5



16



6



11



17

dusky white scales : secondaries uniform dark brown, with two blue spots in the middle of the cell, and just beyond the end of the cell three small white dots ; the tips of the nerves along the outer margin from the apex to near the middle dusky white. The underside the same as above, but the spots are more distinct. Head, thorax, and abdomen brownish black ; legs black ; antennæ wanting.

Expanse 4 inches.

*Hab.* N. India, Darjeeling.

This species is allied to *A. euplocoides* and *A. stelligera* : from the former it is at once distinguished by the entire absence of the creamy white of the secondaries ; from the latter by wanting the marginal row of white spots to both wings and being without the blue marginal band.

#### ZYGÆNIDÆ.

##### SYNTOMIS, Ochs.

SYNTOMIS GEON, sp. n. (Plate XXXII. fig. 2.)

Primaries pale chrome-yellow ; the costal apex and outer margin bordered with black, on the inner edge very much dentated ; a black band at the end of the cell joining a small oval-shaped black spot about the middle : secondaries chrome-yellow, narrowly bordered with black on the outer margin. Front of head, collar, and tegula bright yellow ; back of head and thorax black ; abdomen yellow, banded with black ; anus black ; antennæ black, tipped with white ; legs black.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Philippine Islands, Mindanao (*Semper*).

##### CHARIDEA, Dalman.

CHARIDEA MARIAMNE, sp. n. (Plate XXXII. fig. 3.)

Primaries deep black, with the basal half brilliant morpho-blue, crossed from the middle of the costal margin to near the anal by a narrow bright orange band : secondaries brilliant blue, broadly margined with black at the apex ; head, thorax, and abdomen bright metallic blue ; the underside of abdomen with a central white streak. Antennæ, palpi, and legs black.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Colombia, Bogotá.

This beautiful little species is quite unlike any known to me, and it is one of the most brilliantly coloured insects belonging to this genus.

##### MYDRODOXA, Butler.

MYDRODOXA SEMPERI, n. sp. (Plate XXXII. fig. 1.)

Primaries glossy greenish black, crossed from the costal to the inner margin by a bright metallic golden-yellow band, a row of metallic blue spots close to the base : secondaries glossy black, with an oval hyaline central spot between the costal and inner margin. Head, collar, and front of the thorax bright carmine ; thorax

and abdomen black, the abdomen speckled with golden-yellow scales; antennæ and legs black; wings below black, tipped and speckled with bright green.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Philippine Islands, Luzon (*Semper*).

This fine species is very distinct from any with which I am acquainted, its nearest ally being *M. splendens*, Butler, from Madagascar.

#### PERICOPIDÆ.

##### EUCYANE, Hübner.

**EUCYANE CHILDON, sp. n.** (Plate XXXII. fig. 4.)

Primaries (♂) bluish black, much shot with dark blue from the base to about the middle; a wide orange-coloured band crossing the wing from the costal margin to the anal angle, but not quite reaching the inner margin: secondaries rich bluish black, almost black at the apex. Head and thorax black; abdomen above deep glossy blue, below dark chrome-yellow; antennæ black; legs brownish black. Wings below the same as above, with a submarginal row of bluish-white spots, small in the male but distinct and well defined in the female: in all other respects the female is the same as the male, but slightly larger.

Expanse, ♂  $1\frac{3}{4}$ , ♀ 2 inches.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This handsome species reminds me of *Agarista lethe*, Felder. Mr. Buckley obtained a fine series of specimens of this insect.

**EUCYANE PHLEGON, sp. n.** (Plate XXXII. fig. 5.)

Primaries (♂) deep black, shot with dark blue, crossed beyond the middle by a bright carmine band; secondaries deep glossy blue-black. Head, thorax, and abdomen black, shot with dark blue; underside the same as above. Antennæ and legs black. The sexes are alike.

Expanse ♂ 2, ♀  $2\frac{1}{10}$  inches.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This beautiful species is most nearly allied to *E. jucunda*, Felder, from which it is at once distinguished by the absence of the red spot on the secondaries, and the much less bright blue colour of the wings.

**EUCYANE CHESALON, sp. n.**

Primaries brownish black, crossed by a carmine band; the nerves pale brown; secondaries very dark brown, almost black in some lights. Head, thorax, and abdomen dark brown; antennæ and legs black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

The primaries of this species are coloured almost the same as *E. amica*, Cr., but the entire absence of the red marginal band on the secondaries at once shows that it is a very distinct species.

*EUCYANE SIMSONI*, sp. n.

Primaries brownish black, glossed with dark blue near the base, and crossed from about the middle of the costal margin to the anal angle by a bright carmine band edged on either side with a narrow row of pinkish-white scales; the band is widest on the costal margin: secondaries brown, glossed with very dark blue; the outer margins broadly bordered with carmine. Head and front of thorax bright carmine; abdomen very dark glossy blue; antennæ and legs brownish black. The wings below are the same as above.

Expanse  $3\frac{3}{4}$  inches.

*Hab.* Colombia, Aguano (*Simson*); Ecuador, Sarayacu, Bolivia (*Buckley*).

The first specimen I received of this grand insect was sent home by Mr. Simson, who obtained it and many other fine species at Aguano; since that time I have received several specimens, taken in Ecuador and Bolivia, by Mr. Buckley, who states that its flight is very swift. The example from Bolivia differs from all the others: the band of the primaries is narrower, and the colour of that and the outer margins of the secondaries is pale pink instead of bright carmine. It is quite probable that it may belong to another species, but without more material I do not feel certain upon that point.

*EUCYANE CHISLON*, sp. n.

Primaries dark brown, crossed from the middle of the costal margin to the anal angle by a narrow chrome-yellow band, widest at the costal margin: secondaries uniform dark brown. Underside the same as above except that both wings have a submarginal row of bluish-white spots. Head and thorax dark brown, spotted with white in front; abdomen brown on the upper side, shot with dark glossy blue, the underside bright chrome-yellow; legs dark brown; antennæ and palpi black.

Expanse  $2\frac{1}{4}$  inches.

*Hab.* Ecuador, Intaj (*Buckley*).

This species closely resembles *Agarista lethe*, Felder, in colour.

*COREURA*, Walker.*COREURA SALMONI*, sp. n. (Plate XXXII. fig. 6.)

Primaries dark brownish black, crossed beyond the middle from the costal margin to near the apex, but not quite reaching the inner margin, by a dark red band, in some lights glossed with blue: secondaries dark blue, with the nerves, outer and inner margins dark brown. Wings on the underside the same as above, except that the primaries are dark blue from the base to the red band. Head, thorax, and abdomen dark brown; antennæ, palpi, and legs black.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Colombia, Antioquia, Frontino (*Salmon*).

This beautiful species is very distinct, but comes nearest *Coreura euchromoides*, Walker.

## HYALURGA, Hübner.

## HYALURGA CARALIS, sp. n.

Primaries whitish hyaline, more so near the apex; the costal, outer, and inner margins broadly bordered with black; a band crossing the wing from the costal margin beyond the cell to the anal angle, and all the nerves black; a narrow reddish-brown streak from the base on the costal margin to about the middle of the cell, and a reddish line from the middle of the inner margin reaching the apex, and then extending a little way along the outer margin: secondaries hyaline; the nerves all black; the outer margin bordered with black enclosing a narrow reddish line. Head and front of thorax black, with four white spots in front; thorax black, with two large bluish-white spots at the base. Abdomen brownish black above, with two almost central, rather wide, bluish-white bands extending from the base to the anus, also one on each side; the underside dirty white. Antennæ, palpi, and legs black.

Expanse  $2\frac{3}{4}$  inches.

*Hab.* Ecuador, Intaj (*Buckley*).

This fine species is quite distinct from any other.

## HYALURGA? PUHITES, sp. n.

Primaries semihyaline, thickly speckled with black scales, the costal, outer, and inner margins bordered with black, very broadly at the apex; a black band crossing from the costal margin beyond the middle and extending to the outer margin just above the anal angle, enclosing a large oval white spot crossed by the black nerves: secondaries greyish hyaline, with the outer margin narrowly bordered with black, broadest at the anal angle; the nerves all black, with black scales on each side, the fringe white. Head and collar pale yellow; thorax and abdomen brown, with a central bluish-white line, the underside of the abdomen dusky white; anus bright orange; legs brown; antennæ black; palpi bright yellow.

Expanse  $2\frac{1}{2}$  inches.

*Hab.* Upper Amazons (*Whitely*).

## PHALOË, Guérin.

## PHALOË PYSTE, sp. n.

Primaries dark brown, crossed beyond the middle by two yellowish hyaline bands as in *P. cruenta*, a broad yellowish hyaline band extending from the base along the inner margin almost to the anal angle, and a submarginal row of white spots: secondaries yellowish hyaline, the costal and inner margin thickly speckled with chrome-yellow scales, the outer margin broadly bordered with dark brown and a submarginal row of small white dots. Underside the same as above, excepting that the costal margins of both wings are dark chrome-yellow at the base, and the submarginal row of white spots are larger. Head and thorax black, thickly speckled with small white spots; abdomen above pale brown, on the underside dusky white, a narrow yellow and black line on each side; legs brownish white; antennæ and palpi black.

Expanse  $2\frac{3}{4}$  inches.

*Hab.* Ecuador (*Buckley*).

This species is most nearly allied to *P. cruenta* and *P. lorzæ*, but it can at once be distinguished from either of them by the entire absence of the red spots on the primaries, besides which there are many other differences.

#### PERICOPIS, Hübn.

##### PERICOPIS IRENE, sp. n.

Primaries dark brown, slightly yellowish near the base; a pale yellow band crosses the wing from about the middle of the costal margin to the anal angle, and a submarginal row of minute white spots: secondaries with the basal half pale chrome-yellow, the outer half dark brownish black, crossed from the inner margin near the anal angle to the apex by a band of irregular orange-coloured spots and a submarginal row of white spots. Head and thorax black, spotted with yellow; abdomen above yellowish brown, with a central black line, on the underside yellow; legs brown.

Expanse 3 inches.

*Hab.* Paraguay (*Bates*).

This species is nearest to *P. isse*, from which it is at once distinguished by having only one yellow band crossing the primaries instead of two as in that species, the band nearest the apex being entirely absent, and also by the submarginal row of white spots to both wings.

##### PERICOPIS PHYLEIS, sp. n.

This species is allied to *P. phæba* and *P. ithrana*; but from both it differs in being without the row of spots near the apex of the primaries, and in the almost entire absence of the submarginal row of spots, one only remaining in the middle of the wing close to the outer margin; the yellow band at the end of the cell is smaller and paler-coloured, the base of the wing to near the middle is bright orange-red, extending in streaks almost to the yellow band at the end of the cell: the secondaries are dark brown, streaked with bright orange-red from the base to the outer margin. Head and thorax black, spotted with yellow dots; abdomen reddish brown; legs black.

Expanse  $3\frac{1}{4}$  inches.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This fine species very closely resembles *Heliconius bartletti*. Mr. Buckley obtained a fine series of this insect; all the specimens are before me and do not show any variation.

#### LITHOSIIDÆ.

##### JOSIODES, Felder.

##### JOSIODES SIBYLLÆ, sp. n. (Plate XXXII. fig. 7.)

Primaries and secondaries chrome-yellow, the apical third of the primaries brownish black, darkest on the inner margin where it joins on to the yellow; secondaries broadly bordered with black. Head,

antennæ, and palpi black ; thorax and abdomen dusky yellow ; legs pale brown.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

A pretty little species, not nearly allied to any with which I am acquainted.

#### PTYCHOGLENE, Felder.

PTYCHOGLENE SPLENDIDA, sp. n. (Plate XXXII. fig. 8.)

Primaries very bright green shot with blue, almost metallic, the costal and outer margins narrowly bordered with black ; secondaries black, semihyaline. Head, thorax, and abdomen bright metallic green ; antennæ black, tipped with white ; legs black shot with green.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Chiguinda (*Buckley*).

One of the most beautiful species brought home by Mr. Buckley, to some extent reminding me of *Inopsis cotoxantha*, Felder. I place this species in the genus *Ptychoglene* with considerable doubt.

#### EUDULE, Hübner.

EUDULE SICELIDES, sp. n.

Primaries and secondaries uniform dark red, with the outer margins of both wings narrowly bordered with black. Head and thorax red ; abdomen black ; antennæ, palpi, and legs black ; the underside of the wings the same as above, but rather paler in colour.

Expanse  $1\frac{1}{10}$  inch.

*Hab.* Bolivia (*Buckley*).

This species is allied to *E. sanguinea*, Butler ; but it is a larger insect, darker in colour, without any red on the abdomen, which is quite black below instead of whitish brown.

EUDULE TRITONIA, sp. n. (Plate XXXII. fig. 9.)

Primaries and secondaries orange-yellow ; primaries thickly spotted with greenish-black dots, and a series of short streaks of the same colour along the outer margin, in some specimens more distinct than in others : secondaries with a marginal and submarginal row of minute greenish-black dots, a short black streak on the inner margin about the middle, and a black dot at the end of the cell. Head, thorax, abdomen, and antennæ black, the abdomen banded with white ; the legs brownish black.

Expanse 1 inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

A very beautiful little species, quite distinct from any other with which I am acquainted.

#### MELAMERIDÆ.

##### BEPARA, Walker.

BEPARA CHIGUINDA, sp. n. (Plate XXXII. fig. 10.)

Primaries brownish black, crossed beyond the cell by a narrow

yellow band dentated on the inner edge, a narrow streak extending from the base to near the end of the cell pale yellow : secondaries chrome-yellow, broadly bordered with brownish black. Head, thorax, and the upper side of the abdomen black, the sides yellow ; antennæ black.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Ecuador, Chiguinda (*Buckley*).

I feel doubtful if this species should be placed in the genus *Bepara* ; in many points it is the same, in others it is not ; but only having a few specimens I am unable to decide this point with certainty. Mr. Buckley only met with this species on one occasion.

#### LYCES, Walker.

*LYCES FORNAX*, sp. n. (Plate XXXII. fig. 11.)

Primaries deep black, crossed in the middle from the costal margin to the inner margin near the anal angle by a narrow chrome-yellow band ; secondaries bright chrome-yellow, with a narrow black outer margin, widest at the apex. Head, antennæ, thorax, and abdomen black ; legs black ; underside the same as above. The female the same as the male, but slightly larger in size.

Expanse, ♂  $1\frac{1}{2}$  inch, ♀  $1\frac{3}{4}$  inch.

*Hab.* Ecuador, Intaj (*Buckley*).

This species is allied to *Lyces angulosa*, Walker, from South-east Brazil.

#### SCEA, Walker.

*SCEA FLUONIA*, sp. n. (Plate XXXII. fig. 12.)

Primaries deep black ; a narrow curved, pale, yellow band crossing the wings from the base along the costal margin to about the middle, then crossing to near the anal angle ; secondaries deep black. Head, antennæ, thorax, and abdomen black ; legs black ; the underside of wings the same as above.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Ecuador, Chiguinda (*Buckley*).

This little species is very distinct from any that I am acquainted with. Mr. Buckley only obtained it at Chiguinda.

*SCEA ORILOCHIA*, sp. n.

Primaries slate-black, with the basal half orange, the nerves black ; secondaries black. Thorax, abdomen, legs, head, and antennæ deep black ; the underside the same as above.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Ecuador, Chiguinda (*Buckley*).

A very pretty little species, allied to *S. auriflama*, Hübner, from South-east Brazil.

*SCEA CLEONICA*, sp. n. (Plate XXXII. fig. 13.)

Primaries citron-yellow from the base to beyond the middle, the apex broadly banded with black, the nerves and inner margin black :

secondaries uniform black. Head, thorax, and abdomen dull black. Antennæ of the male deeply pectinated, of the female simple. Legs black. The underside the same as above, except that the legs are not black.

Expanse, ♂  $1\frac{1}{2}$  inch, ♀  $1\frac{3}{4}$  inch.

*Hab.* Ecuador, Chiguinda (*Buckley*).

This insect is allied to the preceding species, from which it is easily distinguished by the much paler colour of the primaries, larger size, and more robust appearance.

#### ACTEA, Walker.

##### ACTEA MINUTA, sp. n.

Primaries deep black, with an elongated oval yellow band beyond the middle between the costal and the anal angle, but not reaching the outer margin; a narrow yellow streak extending from the base along the costal margin to about the middle; secondaries deep yellow, margined with black. Head, antennæ, thorax, and abdomen black, the base and sides of the abdomen banded with yellow.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This little species is very distinct from all others with which I am acquainted.

#### DARNA, Walker.

##### DARNA UNIFASCIATA, sp. n. (Plate XXXII. fig. 14.)

Primaries slightly hyaline, slaty black, with a wide orange-coloured band crossing from the costal margin to near the inner margin, the inner end of the band being rounded; the wing from the base to the red band is shot with pale grey; secondaries uniform hyaline black; the underside the same as above. Head, thorax, and abdomen black shot with bluish grey; antennæ and legs black.

Expanse 2 inches.

*Hab.* Ecuador, Intaj (*Buckley*).

This insect is very distinct from any other with which I am acquainted. Mr. Buckley only met with this species at Intaj.

##### DARNA IMPERIALIS, sp. n. (Plate XXXII. fig. 15.)

Primaries black, shot with bright blue from the base to the middle, where a narrow yellow band crosses from the costal margin to near the anal angle, but not reaching the outer or inner margin; secondaries bright blue, bordered with black. Head, palpi, and antennæ black; thorax and abdomen bright glassy blue above, on the underside brownish black.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Ecuador, Chiguinda (*Buckley*).

This beautiful species is allied to *D. colorata*, Walk., from which it is at once distinguished by the narrow yellow band on the primaries and also in several minor points.

## DARNA TRIPUNCTATA, sp. n. (Plate XXXII. fig. 16.)

Primaries brownish black, with three orange-coloured spots, the first small and near the base, the second at the end of the cell, the third below it close to the inner margin: secondaries bright orange, broadly bordered with brownish black from the apex to the anal angle, the base slightly brown, the underside the same as above. Head, thorax, and antennæ black, tegulæ streaked with yellow; palpi, antennæ, and legs black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

HAGNAGORA, Druce<sup>1</sup>.

## HAGNAGORA BUCKLEYI. (Plate XXXII. fig. 17.)

Primaries rich dark brown, crossed from the middle of the costal to the outer margin near the apex by a dark orange-red band; secondaries dark purple-blue, broadly bordered with dark brown. Underside of the primaries the same as above, but the orange band rather paler in colour; secondaries brown, streaked between the nerves with bright blue. Head, thorax, and abdomen brownish black; antennæ black; legs brown.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Ecuador, Intaj (*Buckley*).

A very beautiful insect, allied to a new species from Nicaragua.

## HAGNAGORA LEX, sp. n.

Primaries dull brown, crossed from the costal margin to the anal angle by a narrow orange-coloured band; secondaries uniform brown. Underside the same as above, except that the secondaries have several silver streaks near the inner margin. Head, antennæ, thorax, and abdomen dark brown.

Expanse  $1\frac{3}{8}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

A small dull-coloured insect, quite distinct from the preceding and also the Central-American species.

## JOSIA, Hübner.

## JOSIA GLYCERA, sp. n.

Primaries deep orange, narrowly bordered with black, resembling *J. ligula* but with the black borders much narrower: secondaries bright orange, with the costal margin and apex broadly bordered with black, and with a black  $\Lambda$ -shaped mark at the anal angle. Head, antennæ, and thorax black; collar and tegulæ yellow; abdomen black, with the base and sides banded with orange-yellow; legs black.

Expanse 1 inch.

*Hab.* Colombia, Manaure (*Simons*).

This insect is allied to *J. ligula*, from which it differs greatly in the markings of the secondaries.

<sup>1</sup> The description of this genus will shortly be published in the 'Biologia Centrali-Americana.'

*JOSIA ORIBIA*, sp. n.

Form of *J. auriflua*, Walk. Primaries deep orange-yellow, with the margins narrowly bordered with black; secondaries orange-yellow, with the costal, outer, and inner margins narrowly bordered with black. Head, thorax, and abdomen black; tegulæ yellow; antennæ black; legs brownish black.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* East Peru (*Whitely*).

A pretty little species allied to *J. auriflua*, from which it is readily distinguished by the great difference in the secondaries.

*JOSIOMORPHA*, Felder.*JOSIOMORPHA STRIATA*, sp. n.

Primaries deep black, with a central narrow band of buff-yellow extending from the base to near the outer margin, where it is reduced to a point; secondaries pale buff-yellow, with the costal, apex, and hind margins narrowly bordered with black. ad, antennæ, thorax, abdomen, and legs all black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This species is quite distinct from any with which I am acquainted.

*FORMIANA*, gen. nov.

Primaries long and broad, with the costal margin much arched near the apex, forming a wide hook, giving the appearance of a piece being cut out of the outer margin between the apex and the anal angle, discoidal cell rather long and broad; secondaries broad and elongated, much rounded-off at the apex. Abdomen extending about one third of its length beyond the wings; anus tufted with short greyish hairs. Thorax broad, clothed with short black hairs. Head small; palpi very small, not clothed with hairs. Antennæ rather long and deeply pectinated; legs slender and rather long.

*FORMIANA MENADES*, sp. n. (Plate XXXII. fig. 18.)

Primaries deep black, with a large, almost triangular, spot beyond the middle, dentated on the outer margin, and a long streak on the inner margin close to the base, citron-yellow: secondaries bright citron-yellow, with the margins narrowly bordered with black. The underside the same as above. The head, thorax, and upper side of the abdomen black; the sides yellow, with a narrow black band, on the underside white; a small yellow spot on each side of the thorax, close to the base of the wings; tegulæ black; antennæ black; legs brownish black.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Bolivia (*Buckley*).

This very fine insect is quite unlike any known to me; it is perhaps best placed before the genus *Flavinia*, which in some respects it resembles.

## FLAVINIA, Walker.

## FLAVINIA CYRENE, sp. n.

Form of *F. postica*. Primaries longer and slightly narrower, the citron-yellow band formed into a large round spot near the apex: secondaries citron-yellow, with the outer margins bordered with black from the apex to anal angle round to the base, thus differing from *F. postica*. Head, thorax, and upper side of abdomen black; sides and underside pale yellow; collar bright yellow; antennæ and legs black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Bolivia (*Buckley*).

## FLAVINIA ROXANA, sp. n. (Plate XXXII. fig. 19.)

Form of *F. læta*, from which it differs in being bright red instead of yellow; the black band crossing the primaries is narrower and more oblique; the large spot near the apex is rounder. The head, thorax, and abdomen are all black, and not striped with yellow as in *F. læta*; antennæ black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* East Peru, valley of the Cosnipata (*Whitely*).

This species is very distinct from all the others in the genus, being at once distinguished by its bright red colour.

## FLAVINIA OPS, sp. n.

Form of *F. læta*, from which it differs in wanting the black band across the primaries; in the specimens before me it is only a black V-shaped mark extending from the costal margin across the end of the cell; in this species the black outer borders of the secondaries are only about half the width of those in *F. læta*.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* New Grenada.

Two examples of this species are in the British-Museum collection from the same locality.

## MICROPUS, Hübner.

## MICROPUS ELEGANS, sp. n. (Plate XXXII. fig. 20.)

Primaries bright yellow, with the costal, apex, and outer margins bordered with black, the black border at the apex not being more than half the width it is in *M. longalis*: secondaries bright yellow, with the apex and outer margin narrowly bordered with black. Head, antennæ, and front of thorax black; thorax and abdomen yellow; the anus and two last segments black; the underside of the abdomen dusky white.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Ecuador, Intaj (*Buckley*).

This species is allied to *M. longalis*, from which it is at once distinguished by its larger size and narrow black borders to the wings.

## MENNIS, Walker.

## MENNIS FIDENTIA, sp. n. (Plate XXXIII. fig. 1.)

Primaries brick-red, with the apical third of the wing sooty black : secondaries brick-red, bordered with black from the apex to the anal angle ; the underside the same as above. Head, thorax, and abdomen black ; antennæ, palpi, and legs brownish black.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Colombia, Antioquia (*Salmon*).

A well-marked and very distinct little species, not nearly allied to any with which I am acquainted.

## MENNIS HERONA, sp. n. (Plate XXXIII. fig. 2.)

Primaries from the base to the middle dull red, from the middle to the outer margin semihyaline smoky black : secondaries dull red, broadly banded with black at the apex, the outer and inner margin narrowly streaked with black. Head, thorax, and abdomen brownish black ; the antennæ and legs black. The underside the same as above in all respects.

Expanse 1 inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

A pretty little insect allied to the preceding species, from which it is at once distinguished by its much more slender form and different position of the red markings.

## MENNIS FICULNEA, sp. n. (Plate XXXIII. fig. 3.)

Primaries semihyaline, clouded with bright red from the base to beyond the middle, the apex and outer margin to the anal angle broadly bordered with semitransparent black ; from anal angle along the inner margin to near the base slightly clouded with greyish white : secondaries bright red, somewhat transparent, broadly bordered with black from the apex to the anal angle, where the border becomes quite narrow. Head, thorax, and abdomen greyish black ; antennæ black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Intaj (*Buckley*).

This species is very distinct, but comes nearest *M. fidentia*.

## MENNIS HAGNO, sp. n.

Primaries shape and form of *M. ficulnea*, but smaller and the red colour of a much more orange shade, the outer half of the wings being dove-colour instead of black ; the secondaries differ in the same way as the primaries, the dove-coloured borders being wider than in *ficulnea*. Head and thorax black ; tegulæ red ; abdomen black, banded with dove-colour ; antennæ and legs black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Intaj (*Buckley*).

This species is easily distinguished from its allies by the dove-coloured margins of the wings.

**MENNIS HALIA**, sp. n. (Plate XXXIII. fig. 4.)

Primaries dull black, with a narrow streak from the base to the end of the cell, and one from the base along the inner margin to the anal angle, brick-red; a band of four brick-red spots following the outer margin, the two first the largest, the third and fourth quite small: secondaries uniform brick-red, narrowly bordered with black from the apex to the anal angle. Head, thorax, and abdomen black; antennæ and legs black.

Expanse 1 inch.

*Hab.* Ecuador, Chiguinda (*Buckley*).

A beautiful little species, very distinct from any that I am acquainted with.

**MENNIS FICARIA**, sp. n. (Plate XXXIII. fig. 5.)

Primaries black, thickly blotched with blood-red spots; secondaries blood-red, narrowly bordered with black; underside the same as above. Head, thorax, and abdomen black; tegulæ red; antennæ and legs black.

Expanse  $\frac{3}{4}$  inch.

*Hab.* Ecuador, Chiguinda (*Buckley*).

This beautiful little species varies very much; some of the specimens have the primaries quite black, but the series before me shows almost every intermediate between the specimens with the spotted primaries and those with black primaries. Taken separately I have little doubt that many entomologists would consider them as distinct species; but with the series in my collection I have not the slightest doubt that they all belong to one very variable insect.

**DEVARA**, Walker.**DEVARA BUBONA**, sp. n. (Plate XXXIII. fig. 6.)

Primaries dull black, with a large white patch extending from the base to about the middle, rounded on the outer edge: secondaries uniform dull black. Underside of primaries black, with the basal half white, the costal margin and apex shaded with greyish brown; secondaries silver-grey clouded with brown, the nerves all black. Head, antennæ, thorax, and abdomen black.

Expanse, ♂  $1\frac{1}{4}$  inch, ♀  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

**DEVARA PHYLEIS**, sp. n.

Primaries black, with a large central round white spot slightly nearest the inner margin; secondaries brownish black. Head, antennæ, and thorax black; abdomen brownish black above, on the underside dusky white. Underside of the wings dusky white, with the outer margins broadly bordered with greyish brown.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Ecuador, Intaj (*Buckley*).

This species is allied to *D. bubona*, from which it is at once distinguished by the different position of the white patch on the primaries.

## NELO, Walker.

## NELO UXISAMA, sp. n. (Plate XXXIII. fig. 7.)

Primaries black, glossed with dark blue from the base to beyond the middle; a large spot beyond the end of the cell bright red glossed with a blue shade: secondaries deep black. Underside of primaries pale brown, with the red spot as above; secondaries pale brown, with the nerves dark brown and a small red dot at the base. Head, antennæ, thorax, and abdomen brownish black; tegulæ black, red at the base; legs black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Intaj (*Buckley*).

This beautiful species is allied to *N. discalis*, Walk., from Bolivia.

## NELO XENOPITHIA, sp. n.

Primaries dark brown, with an elongated oval spot at the end of the cell, bright red, glossed on the inner edge with dark blue: secondaries uniform dark brown. Underside uniform dark reddish brown, with the nerves all black, the red spot on the primaries larger and brighter in colour than on the upper side. Head, antennæ, and thorax brownish black; abdomen brown; tegulæ red at the base; legs dark brown.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This species is quite distinct from any other known to me.

## NELO TOLOSA, sp. n.

Primaries dull black, with a brilliant blue round patch beyond the cell, in the centre of which is a small orange-yellow dot; secondaries very dark brown. Underside of both wings uniform glossy brown, with the nerves black. Head, thorax, abdomen, and legs black; antennæ and palpi black.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This species is allied to *N. xenopithia*, from which it is at once distinguished by the spot of the primaries being bright blue instead of red.

## NELO TOMISA, sp. n. (Plate XXXIII. fig. 8.)

Primaries brilliant dark blue, with the costal and outer margins bordered with deep black, a very minute red spot at the end of the cell: secondaries uniform deep black. Underside of both wings silky brown, with a small red band beyond the cell on the primaries, and a minute red dot at the base of the secondaries. Head, antennæ, thorax, abdomen, and legs brownish black; tegulæ black, with the base red.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This beautiful little species is quite distinct from any with which I am acquainted.

## NELO VELITERNA, sp. n. (Plate XXXIII. fig. 9.)

Size and form of *N. chrysomela*. Primaries brownish black with a central orange-red patch, almost the same as in *N. chrysomela*; secondaries uniform dark brown. Underside of primaries the same as above, but the red colour of the patch not quite so bright; secondaries uniform glossy brown, with the nerves all black. Head, antennæ, thorax, and abdomen black; tegulæ reddish.

Expanse 1 inch.

*Hab.* Ecuador: Chiguinda, Intaj, Sarayacu (*Buckley*); Colombia: Fusagusuga, Pacho, Tolima (*Chapman*).

This pretty little species is allied to *N. chrysomela*, but can at once be distinguished from that insect by its dark-brown secondaries, instead of bright orange as in that species.

## NELO SPLENDENS, sp. n. (Plate XXXIII. fig. 11.)

Primaries dark brown, with a large round patch of orange-red in the middle, also the base and half the costal margin narrowly streaked with red; on the underside bright orange-red, with the apex, outer and inner margins bordered with golden brown: secondaries uniform dark brown; on the underside golden brown, with the nerves black. Head, antennæ, and thorax black; abdomen black above, but lighter on the underside; legs black.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Ecuador (*Buckley*).

This fine species is most nearly allied to *N. fustina*, but very distinct.

## NELO FUSTINA, sp. n. (Plate XXXIII. fig. 10.)

Primaries dark brown, with a very narrow streak from the base halfway along the costal margin brick-red; a narrow band near the apex, much rounded on the outer edge, dull brick-red; secondaries uniform dark brown: underside the same as above, but lighter in colour, and all the nerves black. Head, antennæ, thorax, and abdomen dark brown; legs black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This species can easily be distinguished from all its allies by its very dull colouring, and by the very different position of the red markings on the primaries.

## NELO PATERNA, sp. n. (Plate XXXIII. fig. 12.)

Primaries dark blue-black, with a short orange-coloured band at the end of the cell, not reaching the costal or inner margin; in some lights the orange-coloured band is glossed with pinkish blue. Underside sooty black, with the band longer and broader; secondaries uniform dark blue-black; on the underside brownish black, with all the nerves black. Head, thorax, abdomen, antennæ, and legs dull black.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This species comes nearest *N. fustina*, but it is black instead of brown.

NELO PHILODAMEA, sp. n. (Plate XXXIII. fig. 13.)

Primaries deep blue-black, with a brilliant dark-blue patch beyond the middle; secondaries uniform deep black; the underside sooty black, with all the nerves deep black. Head, antennæ, thorax, and abdomen dull black.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This very fine insect is allied to *N. refulgens*, Felder, from which it is at once distinguished by its greater size, and the entire absence of the white band across the primaries; the white band is replaced by a most brilliant blue patch.

SANGALA, Walker.

SANGALA ANTIPHATES, sp. n. (Plate XXXIII. figs. 14, 15.)

Primaries and secondaries brilliant dark blue, with the costal and outer margins narrowly bordered with black. Underside of primaries uniform silky dove-colour. Secondaries dove-colour, with the nerves black; a band of four elongated white spots placed between the nerves, the first spot on the costal margin close to the anal angle. Head, antennæ, thorax, and abdomen deep black; the sides of the abdomen with narrow red lines.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This fine species is allied to *S. beata*, Walker, but on the under-side it is very distinct.

ERBESSA, Walker.

ERBESSA CALYDON, sp. n.

Primaries brownish black, with a central longitudinal streak from the base to about the middle, bluish hyaline, beyond which an oblique white hyaline band, not extending to the costal margin; secondaries whitish hyaline, broadly bordered with black from the apex to the anal angle; the nerves black. Head, thorax, and abdomen black; antennæ and legs brownish black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This beautiful little species is quite distinct.

ERBESSA CAPENA, sp. n.

Primaries bluish black; the nerves bluish white from the base to about the middle; a transverse hyaline band across the middle of the cell extending to the anal angle, beyond and nearer the apex; an elongated white spot followed by two smaller spots close to the outer margin. Secondaries whitish hyaline shot with blue; the costal margin, apex, and outer margin broadly banded with bluish

black, a small white hyaline spot close to the apex. Head, thorax, and antennæ black; abdomen brownish black shot with blue, with a narrow white line on either side; the underside white; legs dusky white.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

#### PSEUDEBESSA.

PSEUDEBESSA CASSANDRA, sp. n.

Primaries black, with the base shot with bright blue; from the base to beyond the middle, at the end of the cell and reaching almost to the anal angle, a large elongated whitish hyaline spot; the apex narrowly bordered with white: secondaries whitish hyaline, broadly margined with black, shot with brilliant blue. Head, antennæ, and legs black; thorax and abdomen black, glossed with bright blue.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Sarayacu (*Buckley*).

This beautiful little species is very distinct from all others with which I am acquainted.

PSEUDEBESSA CARESA, sp. n.

Primaries dull black, with a central round white spot, and a white streak near the base on the inner margin: secondaries whitish hyaline, broadly bordered with black. Head and palpi bright orange-yellow; thorax black; abdomen and legs brownish black; antennæ black.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* East Peru (*Whitely*).

A dull-coloured little species, but very distinct.

#### Family EUSCHEMIDÆ.

##### PHEOCHLÆNA, Hübn.

PHEOCHLÆNA INARIA, sp. n. (Plate XXXIII. fig. 16.)

Primaries deep black, with an elongated streak from the base near the inner margin to about the middle, and a small oval spot near the apex creamy white: secondaries creamy white, broadly bordered with black; the underside the same as above. Head black, with the front and sides yellowish white; thorax black, with a central yellow line; tegulæ white. Abdomen black above, with a central white line from the base almost reaching the anus, and a narrow deep yellow line on either side; on the underside creamy white. Antennæ and legs black.

Expanse 1 inch.

*Hab.* Ecuador: Intaj, Sarayacu (*Buckley*).

In form this species resembles *P. solitucis*, Butler.

*PHÆOCHLÆNA CINGULINA*, sp. n.

Primaries deep black, with all the nerves light ochraceous brown; an oval spot at the end of the cell, and a triangular one between the median nerve and the inner margin, slightly nearer the base than the apex, creamy white: secondaries creamy white, with the margins broadly banded with black. Head, thorax, and abdomen black; tegulæ and sides of head bright orange; a central streak, and the underside of the abdomen white; antennæ and legs black.

Expanse  $1\frac{1}{8}$  inch.

*Hab.* East Peru (*Whitely*).

*PHÆOCHLÆNA AURANTICA*, sp. n. (Plate XXXIII. fig. 17.)

Primaries deep black, with all the nerves bright orange-yellow: secondaries creamy white, with the margins broadly banded with black. Head, thorax, and abdomen black; the abdomen with a central streak, and one on each side bright yellow; antennæ and legs black.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Bolivia (*Buckley*).

This species is allied to the preceding, from which it is at once distinguished by the entire absence of the white spots on the primaries.

## EXPLANATION OF THE PLATES.

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- Fig. 1. *Mydrodoxa semperi*, p. 519.  
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- Fig. 11. *Lyces fornax*, p. 525.  
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## PLATE XXXIII.

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